A Little about Anaesthesia

By David Mathew

DRSABC – Danger, Response, Send for help, Airway, Breathing, Circulation.

Someone collapses and this ubiquitous mnemonic flashes to mind. It is of no surprise then that one of its letters, *A*, has been transformed into a specialty unto itself, Anaesthesia. Certainly, Anaesthesia is a complex specialty, intricately synergising Physiology and Pharmacology in an attempt to attain the ideal triad of amnesia, analgesia and muscle relaxation. Nevertheless, one cannot deny the fundamental role of Anaesthesia, which is to keep the patient alive by maintaining airway patency.

In December last year, I was fortunate to be able to do a two-week elective with the Department of Anaesthesia at National University Hospital (NUH), and would like to share my experiences during my fortnight there with the medical community.

Anaesthesia embraces various aspects of Medicine, ranging from the surgical aspect to the clinics run, such as the Pain Clinic and the Anaesthetic Outpatient Consultation Clinic (AOCC).

The surgical aspect allows anaesthetists the opportunity to be adept at the various techniques to achieve balanced anaesthesia. The subdivisions of surgical anaesthesia are wide, ranging from general to regional to local anaesthesia, and even within each, there are various techniques employed. I was fortunate to witness a femoral and sciatic nerve block performed under ultrasound. Dredging up the landmarks of the nerves I once learnt during my Anatomy lessons, I was reminded that reality was so much tougher than the diagrams presented in books.

There are three main phases of anaesthesia, namely induction, maintenance and recovery. Induction occurs with much exigency, whilst maintenance occupies the bulk of the procedure. The recovery period is variable, and depends on the removal of the anaesthetic agent from the body.

I realised the integral role I played during induction, when asked to bag and mask the patient, as I was literally manually keeping the patient alive with my hands. Watching the chest rise and listening for air leaks were the two physical ways to assess whether sufficient ventilation was provided. In addition, the fluctuations of the end tidal carbon dioxide and the tidal volume displayed on the monitors further enabled me to accurately assess the optimal ventilation each patient required.

The beeping of the monitors during the phases was a constant reminder to the anaesthetists of the vital signs which were continually being checked, and the need to meticulously record them at regular intervals.

Recovery was a delicate balance of ensuring that the patient was anaesthetised enough throughout the operation yet would be able to regain awareness (if under general anaesthesia) as quickly as possible after the procedure. There was the rare occasion when I watched the anaesthetist remain by the patient's side, long after the operation had concluded, due to the failure of the patient to resume spontaneous breathing.

The two clinics I attended also gave me the chance to view another aspect of Anaesthesia.

The AOCC plays an integral role in determining patients' fitness for surgery. Each patient is given an American Society of Anaesthesiologists (ASA) score, ranging from ASA I to ASA V, which allows one to have a better idea of the preoperative health status of the patient. This score helps anaesthetists tailor the appropriate anaesthetic according to each individual's need.

The visit to the Pain Clinic was a rare opportunity for me to see a spectrum of cases involving the use of various analgesics. Pain is defined by the World Health Organization (WHO) as "an unpleasant sensory or emotional experience associated with actual or potential tissue damage, or described in terms of such damage".

From the lancinating neuropathic pain of herpes zoster (commonly known as shingles) to the nagging discomfort of a postoperative inguinal hernia repair, I watched as the WHO Analgesic Ladder was called into play. Different options were served to each patient, and it dawned upon me how difficult chronic pain was to manage. I soon came to appreciate that pain was essentially what the patient felt, while an empathetic personality and a listening ear were sometimes half the cure.

All in all, I was captivated by the experiences offered to me by the various anaesthetists during my rotation. I was given the chance to witness and assist in procedures, giving me a feel of the life of an anaesthetist. Though I know that this is only the tip of the iceberg, I have truly enjoyed and relished each moment of the rotation.

I would like to sincerely thank the NUH Department of Anaesthesia for accepting my elective application, the doctors who were kind enough to take time out of their busy schedules to accommodate me and the administrative staff within the department for their efficient rostering of my schedule. SMA

David is a final year medical student at Monash University in Melbourne, Australia. His interests include playing soccer and chess. He enjoys teaching his peers in Medicine and believes that teaching is a powerful tool which can shape someone's perception of the discipline.